

### **REMARKS/ARGUMENTS**

The non-final Office Action of January 17, 2007, has been carefully reviewed and these remarks are responsive thereto. Applicants' counsel wishes to thank the Examiner for discussing the application on April 17, 2007, although no agreement on allowable subject matter was reached at that time, other than the previously objected to claims 6, 19, and 32. Independent claims 1, 14, and 29 have been amended, dependent claims 2-4, 9-10, 12-13, 16-17, 27-28, and 30-34 have been amended, and claims 11 and 26 have been cancelled. Claims 1-10, 12-25, and 27-34 remain pending and allowance of the instant application are respectfully requested. New dependent claims 35-38 have been added.

#### ***Allowable Subject Matter***

Applicants thank the Examiner for indicating allowable subject matter with respect to claims 6, 19, and 32.

#### ***Claim Rejections Under 35 U.S.C. §102(e)***

In the non-final Office Action mailed January 17, 2007, claims 1-4, 9-11 and 34 were rejected under 35 U.S.C. 102(e), as being anticipated by Willars et al (2003/0013443).

Claims 5 and 31 were rejected under 35 U.S.C. 103(a) as being unpatentable over Willars in view of Chambert (5,499,387).

Claims 7, 8, 30 and 33 were rejected under 35 U.S.C. 103(a) as being unpatentable over Willars in view of Kennedy, III et al (5,966,658).

Claims 12 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Willars in view of Igarashi et al (2001/0053694).

Claims 14-17, 22-26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Willars in view of Funato et al (2003/0087646).

Claim 18 was rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Willars and Funato in view of Chambert.

Claims 20 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Willars and Funato in view of Kennedy, III.

Claims 27 and 28 were rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Willars and Funato in view of Igarashi.

Claims 6, 19 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 1, as amended, recites, *inter alia*, a “method comprising the steps of: (1) sending an authorization inquiry from a first access router to a second access router including an identifier that identifies the mobile terminal; (2) querying a database maintained by a home network associated with the mobile terminal to determine whether the mobile terminal is authorized to be handed off to the second access router by sending the authorization inquiry from the second access router to an administrative server associated with the second network and sending the authorization inquiry from the administrative server associated with the second network to a home server of the home network that accesses the database. . . .”

As recognized in the Office Action (at page 9), Willars et al. fails to disclose access router equipment for performing a handoff process.

Willars et al. also fails to disclose a method comprising “(2) querying a database maintained by a home network associated with the mobile terminal to determine whether the mobile terminal is authorized to be handed off to the second access router by sending the authorization inquiry from the second access router to an administrative server associated with the second network and sending the authorization inquiry from the administrative server associated with the second network to a home server of the home network that accesses the database. . . .” Willars does not disclose an administrative server associated with the second network that receives an authorization inquiry from the second access router and then sends the authorization inquiry to a home server of the home network that accesses a database. The other cited art, including Funato et al., does not remedy these deficiencies in Willars et al. Thus, even

if the proposed combination of Willars et al. and the other cited art is proper, it does not result in claim 1, as amended.

Claims 2-4 and 9-13 are dependent on claim 1 and are thus allowable for at least the same reasons as claim 1 and further in view of the novel and non-obvious features recited therein.

Additionally, claim 3 recites, *inter alia*, “the method of claim 1, wherein steps (1) through (4) are performed without allocating any radio frequency resources of the second access device to communicate with the mobile terminal until after it is determined that the mobile terminal is authorized to be handed off to the second access device.” Even assuming, without admitting, the DRNC is a second access device, Willars does not teach or even suggest that steps (1) through (4) of claim 1 are performed without allocating any radio frequency resources of the second access device to communicate with the mobile terminal until after it is determined that the mobile terminal is authorized to be handed off. To the contrary, Willars states that “if an RNC is a drift RNC (DRNC), it supports the serving RNC (SRNC) by *supplying radio resources* (within the cells controlled by the drift RNC (DRNC)) needed for a connection with the user equipment unit (UE).” P. 2, ¶ 13. Willars does not suggest that radio resources are allocated until after authorization. Thus, claim 3 is allowable for this additional reason.

Claim 29, as amended, recites, *inter alia*, “A method comprising the steps of: (1) prior to initiating a handoff operation of a mobile terminal from a first network served by a first access router to a second network served by a second access router, sending an authorization inquiry from the first access router to an administrative server associated with the first network; (2) sending the authorization inquiry from the administrative server associated with the first network to a home server of a home network associated with the mobile terminal, the authorization inquiry including an identifier that identifies the mobile terminal . . . .” Claim 29 is allowable for at least the above reasons that claim 1 is allowable, i.e., the alleged disclosure in Willars et al. 2003/0013443 A1.

Claim 34 depends on claim 29 and is thus allowable for at least the same reasons as claim 29 and further in view of the novel and non-obvious features recited therein.

In addition, claim 34 recites, inter alia, "wherein steps (1) to (4) are performed without allocating any radio frequency resources for communicating between the second access device and the mobile terminal until after it has been determined that the mobile terminal is authorized to be handed off to the second access device." Similar to the arguments presented with respect to claim 3, Willars fails to teach or even suggest such a feature. As such, claim 34 is allowable for this additional reason. The other cited art does not remedy the deficiencies in Willars.

***Claim Rejections Under 35 U.S.C. §103(a)***

Claims 5 and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Willars in view of Chambert (U.S. Patent No. 5,499,387). This rejection is respectfully traversed for the following reasons.

Chambert generally relates to handoffs in a mobile radio communication system. More specifically, Chambert discloses a method for facilitating a second handoff immediately after a first handoff without requiring that a certain amount of time has elapsed. Col. 1, ll. 48-53. The method involves measuring signal strength from potential surrounding base stations when performing a first handoff and using that same data for making an immediate second handoff. Col. 3, ll. 41-53.

In order to rely on a reference under 35 U.S.C. § 103, the reference must be analogous prior art. MPEP §2141.01(a). Chambert fails to satisfy this requirement and thus, the Examiner's use of Chambert as a basis for rejection is improper. According to the Federal Circuit, the applied reference "must either be in the field of Applicants' endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). As discussed above, Chambert deals exclusively with measuring signal strength and using prior measurement data to increase the efficiency of handing off a mobile terminal on two consecutive occasions (one immediately after another), without a significant lapse of time. Applicants' invention, on the other hand, teaches

method and apparatus for *pre-authorizing handovers* of mobile terminals among access routers in communication networks. Nowhere does Chambert mention or even suggest pre-authorization technology for handovers of mobile terminals. As such, the fields of endeavor of Applicants' invention and the Chambert invention are entirely different. Similarly, Chambert's method of improving consecutive handoff efficiency is not reasonably pertinent to the Applicants' problem of pre-authorizing handovers of a mobile terminal between two networks. Chambert would not have logically "commended itself to [the] inventor's attention in considering his problem." *In re Clay*, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992). As such, Applicants respectfully requests the withdrawal of Chambert as a basis of rejection for at least this reason. In addition, even if combined, Chambert does not cure the deficiencies of Willars. Claims 5 and 31 are thus allowable for at least these reasons.

Claims 7, 8, 30 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Willars in view of Kennedy, III *et al.* (U.S. Patent No. 5,966,658) (hereinafter "Kennedy"). This rejection is respectfully traversed for the following reasons.

Kennedy generally relates to the automatic selection of a communication path. More specifically, a mobile unit may automatically select a communication path by considering a variety of factors. Col. 5, ll. 52-66. In short, the mobile unit determines the desirability of each alternate communication path and may switch to an alternate path if the path is deemed more desirable.

Like Chambert, Kennedy fails to satisfy the analogous art requirement. As described above, Kennedy's field of endeavor relates to choosing a communication path that will maximize a particular set of path characteristics. Col. 1, ll. 5-7; *see also* Col. 1, ll. 47-57. In contrast, Applicants' invention teaches a method of performing the handoff of a mobile terminal to a target access device/network using pre-authorization to avoid handovers resulting in a denial of service. Specification, p. 3-4, ¶¶ 11-12. As such, Kennedy's invention does not fall within Applicants' field of endeavor and is highly distinguishable. Moreover, Kennedy is not reasonably pertinent to the problems Applicants' invention seeks to solve and thus, Applicants would not be reasonably expected to examine Kennedy in considering those problems. At no

point does Kennedy address or suggest any of the deficiencies of unauthorized handovers identified in Applicants' specification. As such, Applicants respectfully request the withdrawal of Kennedy as a basis of rejection. In addition, even if combined, Kennedy does not cure the deficiencies of Willars. Claims 7, 8, 30 and 33 are thus allowable for at least these reasons.

Claims 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Willars in view of Igarashi *et al.* (U.S. Patent Pub. No. 2001/0053694) (hereinafter "Igarashi"). This rejection is respectfully traversed for the following reason.

The Office Action fails to offer any evidence why one of ordinary skill in the art would be motivated to combine the Willars and Igarashi references. The Federal Circuit has repeatedly stated that the limitations of a claim in a pending application cannot be used as a blueprint to piece together prior art in hindsight, *In re Dembiczak*, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999), and that the Patent Office should *rigorously* apply the requirement that a teaching or motivation to combine prior art references needs to be provided. *Id.* (emphasis added). The Office Action only offers that the combination would have been obvious "in order to comply with Internet standards of transporting information via IP." Yet Willars specifically reads on a radio network system that operates of radio communication protocols such as Wideband, Code Division Multiple Access (WCDMA). P. 5, ¶ 51. The Office Action fails to identify and explain the alleged motivation of complying with Internet standards of transporting information via IP (i.e. DIAMETER) in a radio access network. The Office Action is improperly and impermissibly using Applicants' invention as a blueprint. As such, claims 12 and 13 are allowable for at least this reason. In addition, even if combined, Igarashi does not cure the deficiencies of Willars. Claims 12 and 13 are thus allowable for at least these reasons.

Claims 14-17 and 22-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Willars in view of Funato *et al.* (U.S. Patent Pub. No. 2003/0087646) (hereinafter "Funato").

Claim 18 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Willars and Funato in view of Chambert.

Claims 20 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Willars and Funato in view of Kennedy.

Claims 27 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Willars and Funato in view of Igarashi.

The rejections in based on Willars in view of Funato are respectfully traversed for the following reasons. Independent claim 14, as amended, recites, "An access router that serves mobile terminals within a service area, comprising a processor that performs the steps of: . . . (2) sending the authorization information to an administrative server associated with the second network for transmittal from the administrative server associated with the access router to a home server of the home network that accesses the database and causing a database maintained by a home network associated with the mobile terminal to be queried to determine whether the access router is authorized to accept a handoff operation for the mobile terminal . . . ." As noted above with respect to independent claims 1 and 29, Willars Publication No. US 2003/0013443 fails to teach or even suggest such features. Funato does not remedy these deficiencies in Willars. Thus, claim 14 is thus allowable for at least these reasons. Similarly, dependent claims 15-25, and 27-28, are patentable over the proposed combination of Willars and Funato, and the proposed combination of Willars and Funato, when further combined with either Chambert, Kennedy, or Igarashi. Chambert, Kennedy, and Igarashi each fails to remedy the above deficiencies in Willars and Funato. Therefore, Applicants respectfully request withdrawal of the rejections of these claims.

Dependent claims 2-10, 12-13, 15-25, 27-28 and 30-34 are patentable for at least the same reasons as the independent claims from which they depend. Similarly, new dependent claims 35-38 are patentable for at least the same reasons as the independent claims from which they depend.

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### CONCLUSION

All rejections having been addressed, Applicants respectfully submit that the instant application is in condition for allowance, and respectfully requests prompt notification of the same. If there are any questions, the examiner is invited to contact Applicants' undersigned representative at the number noted below.

Respectfully submitted,

BANNER & WITCOFF, LTD.

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By:



Robert H. Resis  
Registration No. 32,168  
Direct Dial: (312) 463-5405

BANNER & WITCOFF, LTD.  
10 S. Wacker Dr., Suite 3000  
Chicago, IL 60606-7407  
Tel: (312) 463-5000  
Fax: (312) 463-5001